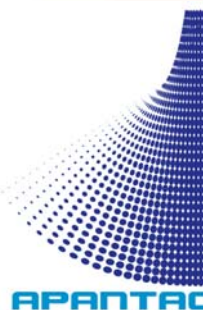

HDMI CLEAN SWITCH

Model: CLN-SW-6x1-H

USER MANUAL

Last Updated: May 20, 2014



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1.0 What's In The Box?

	HDMI Clean Switch, Model: CLN-SW-6x1-H
	RS232 Communication Connecting Cable
	Power Cord
	Power Adapter
	HDMI Cable
	Remote Control
	User Manual
	HDMI Matrix Software CD
	Rack Ear Screws
	2 Rack-Mount Brackets

2.0 Features

- Up/down/cross converter equipped with HDMI input/output
- HDTV resolution up to 1080P
- Compliant with the specifications of HDMI
- 7 built-in presets (1 x full screen, 4 x PIP mode, 2 x PBP mode)
- Supports adjustable audio delay time for lip-sync (up to 70 ms)
- Supports 2 aspect ratio modes
 - 1:1 Aspect ratio mode: Keeps original input source aspect size and ratio
 - Full Screen Aspect ratio mode: This mode modifies the original input image to fit the aspect ratio of the output display. Image may be cropped or distorted to fit within the screen of the output display.
- Supports 8 different output resolutions:
VGA, 480P, SVGA, XGA, 720P, SXGA, UXGA, 1080P
- Supports “Audio Delay” adjustment for lip sync
- Supports both HDMI and VGA output
- Supports RS232 control.
- Supports Ethernet control
- Hot pluggable and 1RU rack design
- EDID management (copy from destination port)

3.0 Specifications

FUNCTION	CLN-SW-6x1-H
INPUT CONNECTOR	6 x HDMI Type A Female
OUTPUT CONNECTOR	1 x HDMI Type A 1 x VGA HD15
RS232 CONNECTOR	DB9 Female
LAN CONNECTOR	RJ45
AUDIO OUT	1 x 35mm phone jack
DIP SWITCH	1 x 8 positions
POWER	100 ~240 VAC, 12V 5A DC Adapter
SIZE	1RU, 384x173x 45 mm
WEIGHT	1.8kg
MAXIMUM RESOLUTION	1080P 60Hz
MAXIMUM PIXEL CLOCK	225MHz
HDMI CABLE DISTANCE	10 meters (33 feet)
CONTROL	IR remote RS232 Ethernet via Web

4.0 Front/Rear Panels

4.0.1: Front Panel



Figure 4-1: CLN-SW-6x1-H Front Panel

4.0.2 Button Descriptions

- A 1 ~ 6: Input selection for the 6 primary inputs
- B 1 ~ 6: Input selection for the 6 secondary inputs
- A/B: Audio selection for input A or B
- Audio Delay: Audio delay adjustment for lip sync up to 70 ms
- Aspect Ratio:
 - Full Screen: Will match the image to the display aspect ratio
 - 1:1: Will retain the original input aspect ratio
- Resolutions
 - VGA, 480P, SVGA, XGA, 720P, SXGA, UXGA, 1080P
- Presets: Presets 1 to 6.
7 is reserved.

4.0.3: Rear Panel



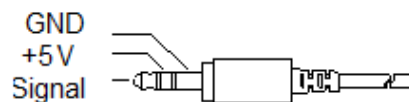
Figure 4-2: CLN-SW-6x1-H Rear Panel

1. Power: 12V DC 3A
2. HDMI 1 ~ 6: 6 HDMI inputs

HDMI Type A Connector Pin Definition:

Pin #	Signal	Pin #	Signal
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock-
3	TMDS Data2-	13	NC
4	TMDS Data1+	14	NC
5	TMDS Data1 Shield	15	DDC-SCL
6	TMDS Data1-	16	DDC-SDA
7	TMDS Data0+	17	DDC-Ground
8	TMDS Data0 Shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		

3. HDMI out: HDMI output
4. VGA out: VGA copy of HDMI out
5. Audio out: Analog audio monitoring output. Follows video output
6. RS232
7. IR: Connection to the IR Blaster



8. DIP Switch:

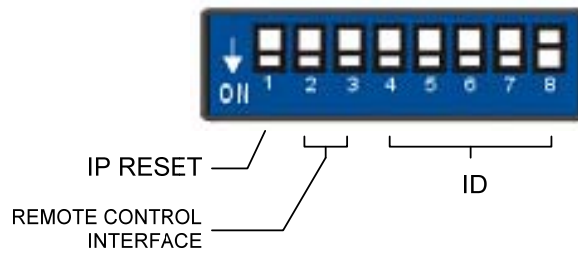


Figure 4-3: DIP Switch

- **DIP Switcher Pin 1:** Reset the web server IP address to 192.168.0.3. The steps are as below:
 - o Please adjust the pin1 to ON and re-start the CLN-SW-6x1-H Switcher
 - o After the HRM-602P Switcher re-starts about 10 seconds, shut down your equipment.
 - o For a normal operation, please adjust the pin1 to OFF, then power on the HRM-602P Switcher again. The IP address will be restored to the default value: 192.168.0.3
- **DIP Switcher Pin 2 to 3:** Switch between RS232 port and LAN port connection.

	SW3	SW2
LAN	ON	ON
RS232	ON	OFF

- **DIP Switcher Pin 4 to 8:** Down position is "ON" (0), the up position is "OFF" (1)

9. HDMI 1 ~ 6: HDMI/DVI monitors or projectors

HDMI Type A Connector Pin Definition:

Pin #	Signal	Pin #	Signal
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock-
3	TMDS Data2-	13	NC
4	TMDS Data1+	14	NC
5	TMDS Data1 Shield	15	DDC-SCL
6	TMDS Data1-	16	DDC-SDA
7	TMDS Data0+	17	DDC-Ground
8	TMDS Data0 Shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		

5.0 Remote Communications

5.0.1 Switch Control Connection

Use the supplied RS232 cable to connect the computer's serial port (COM1 or COM2) to the RS232 port of the CLN-SW-6x1-H to enable remote control via serial interface.

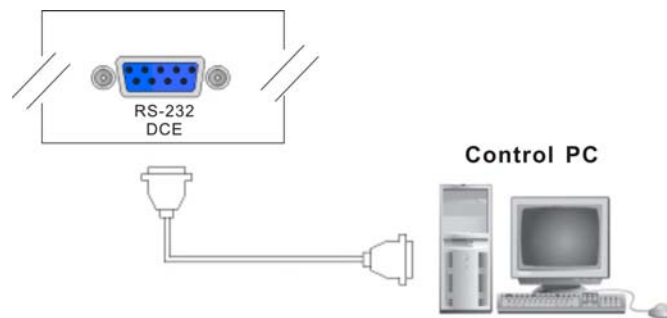


Figure 5-1 (a): RS232 and Control PC connection

CLN-SW-6x1-H also supports a LAN port that allows you to control the switch through a browser.

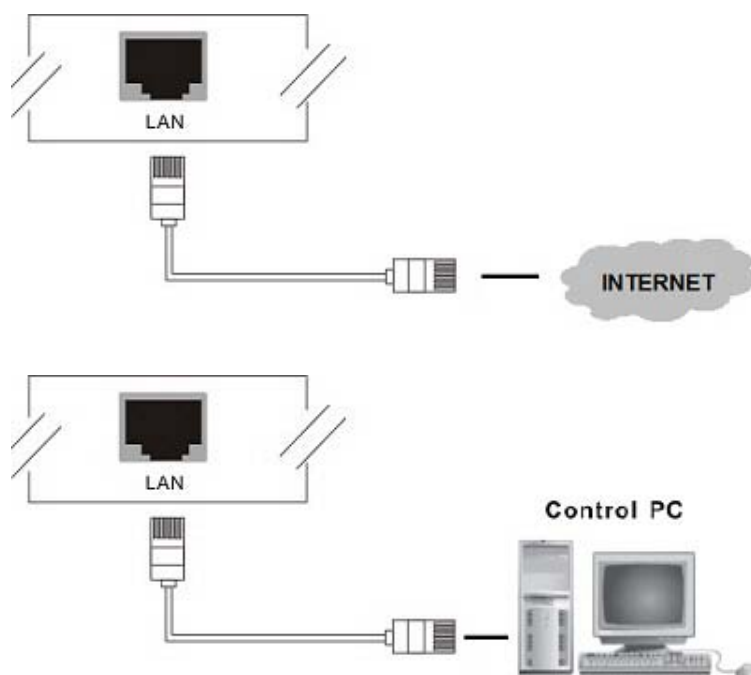


Figure 5-2 (b): LAN port and Control PC Connection

RS232 Pin out

Pin No.	Leg	Description
1	N/u	Null
2	Tx	Send
3	Rx	Receive
4	N/u	Null
5	Gnd	Ground
6	N/u	Null
7	N/u	Null
8	N/u	Null
9	N/u	Null

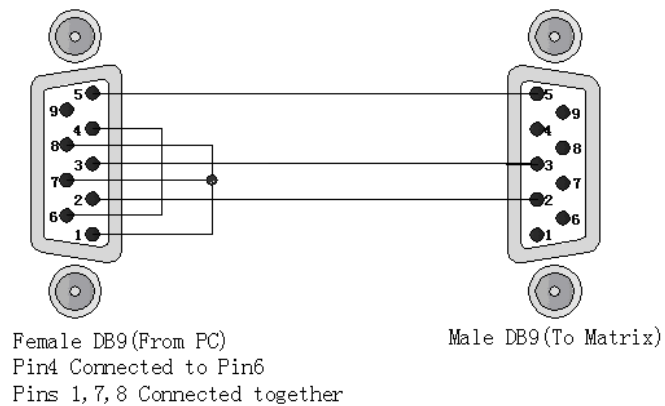


Figure 5-3

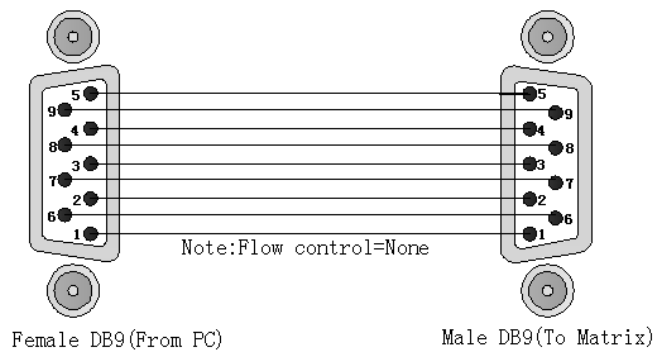


Figure 5-3 (a)

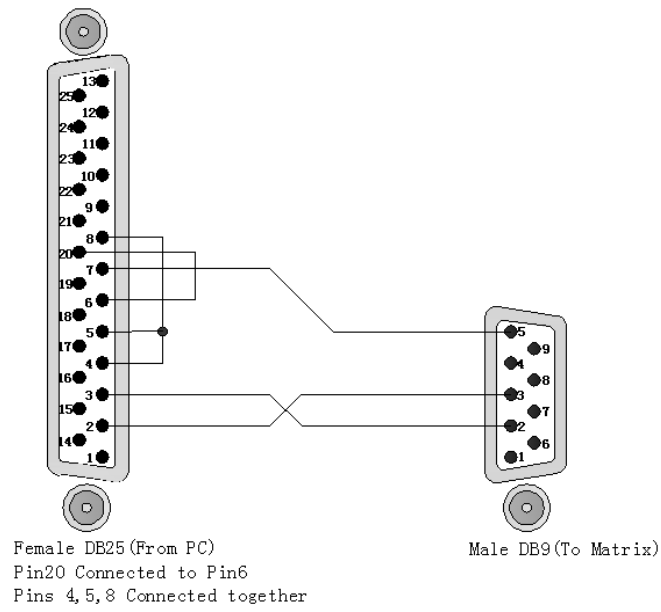


Figure 5-3 (b)

5.0.2 IR Connection

The CLN-SW-6x1-H can also be controlled via an IR remote control simply by connecting the IR port on the rear panel.

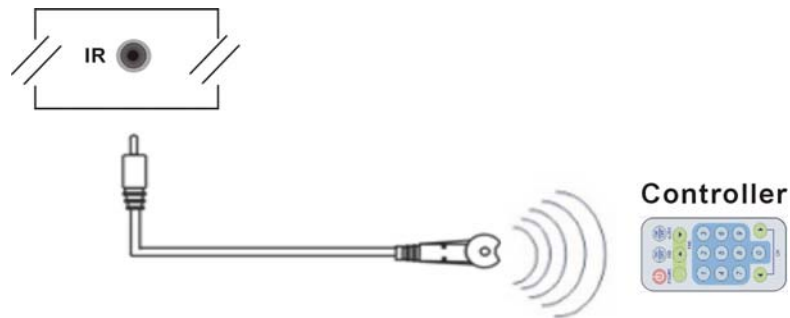


Figure 5-4: IR Connection

The CLN-SW-6x1-H supports a remote controller, which allows remote switching with an IR remote control.

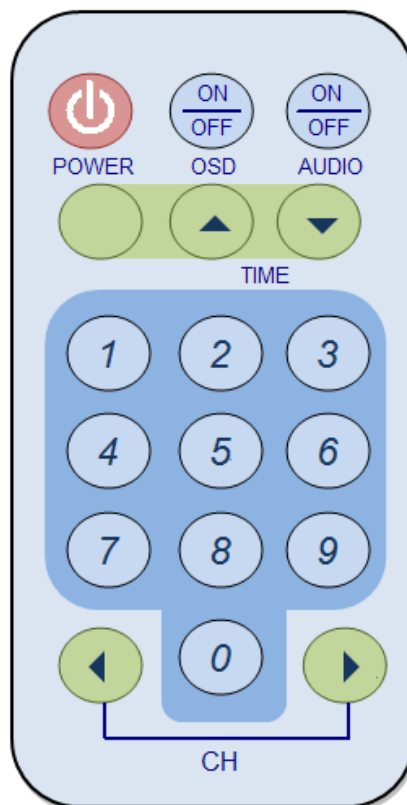


Figure 5-5: Remote Control

Channel A Selection:

Press the Number#1~6 button to select the inputs on Channel A.

Channel B selection:

Press the “0” + Number#1~6 button to select the inputs on Channel B.

Example: Press the “0” on the Remote first, then press the “3” to select input 3 on channel B. Channel B is only available in PIP modes (1 ~ 7).